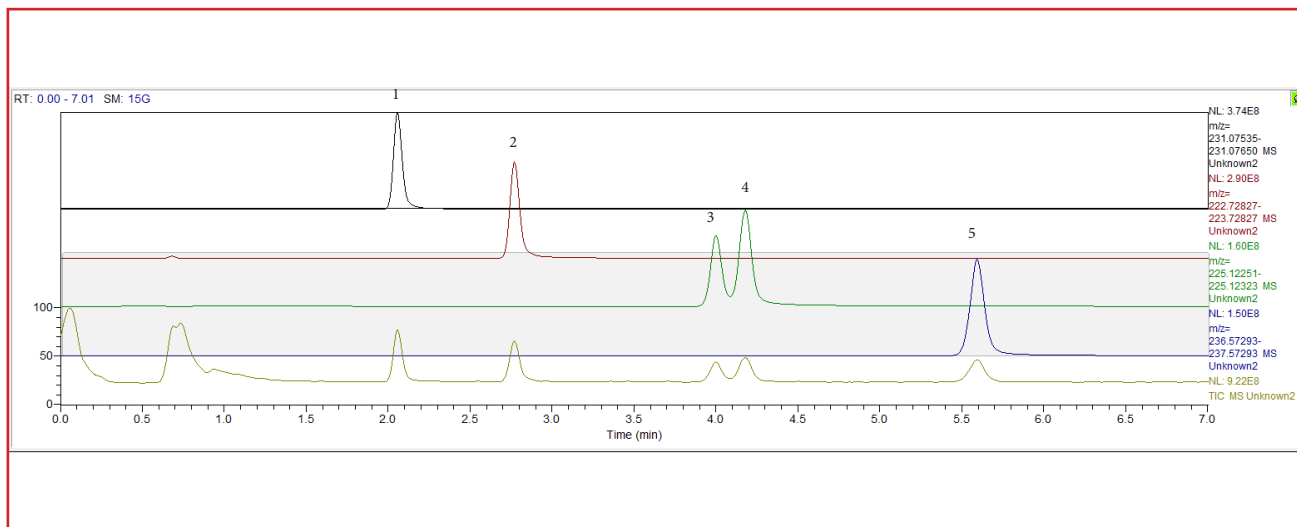




### LCMS Separation of Barbiturates

241-TOX



#### PEAK IDENTITIES

	Barbiturate	Precursor Ion (m/z)	Product Ion (m/z)
1	Phenobarbital	231.1	188
2	Butalbital	223	180
3	Pentobarbital	225.1	182
4	Amobarbital	225.1	182
5	Secobarbital	237.1	194.1

Barbiturates are central nervous system depressants. These drugs are commonly prescribed to treat headaches, insomnia, and seizures. An LCMS separation of barbiturates is demonstrated on a HALO® C18 column, resolving all peaks including the isomers. The mix of barbiturates was diluted with a negative urine standard and detected using an LCMS.

#### TEST CONDITIONS:

**Column:** HALO 90 Å C18, 2.7 µm, 2.1 x 150 mm  
**Part Number:** 92812-702  
**Mobile Phase A:** Water/ 0.1% Formic Acid  
**Mobile Phase B:** Acetonitrile  
**Isocratic:** 30 %B  
**Flow Rate:** 0.4 mL/min  
**Temperature:** 30 °C  
**Detection:** -ESI  
**Injection Volume:** 0.5 µL

**Sample Solvent:** Surine negative urine standard  
**LC System:** Shimadzu Nexera X2  
**MS System:** QExactive HF  
**ESI voltage:** 2.5 kV  
**Heater Temp:** 425 °C  
**Sheath gas:** 50 (arbitrary units)  
**Aux gas:** 13 (arbitrary units)  
**Tube lens voltage:** 50 V

